

## 32-640 Removal and installation of pressure oil pump

### Data

#### Driver for pressure oil pumps

Engine	Pressure oil pump make	Driver Part no.	
102	MB	102 236 00 16	 1324-94460
110	MB	116 236 02 16 <sup>1)</sup> 110 236 01 16 <sup>2)</sup>	 1324-3014 1)  2) 1324-3017
114, 115, 123, 130, 180	MB	116 236 01 16	 1324-3010
	Teves <sup>3)</sup>	114 236 00 16	 1324-3011
116, 117	MB	116 236 00 16	 1324-3013
615, 616, 617	MB	615 236 00 16	 1324-3017
	Teves <sup>3)</sup>		

1) Former version

2) Present version

3) Standard up to March 1972. Starting April 1972 only MB pressure oil pumps have been mounted.

#### Intermediate flange for pressure oil pump on engines 114, 130, 180<sup>1)</sup>

Version	Part no.	Hex. socket screw Part no.	Threads
1. up to Nov. 1971	114 236 00 45	007984 006009	M 6
2. starting Dec. 1971	114 236 01 45	114 990 01 12	M 8

<sup>1)</sup> important when installing an exchange engine

#### Tightening torque

Hex. socket screws for attaching pressure oil pump to engine	Nm
	11
Hollow screw for HP expanding hose on pressure oil pump	25

## Note

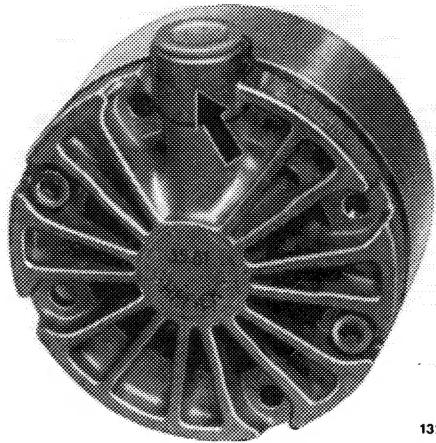
As a spare part, the pressure oil pump is available only in the version for hydropneumatic suspension, part no. 117 230 00 64. Pump is marked with the letters HPF-E on front bearing cap adjacent to production code number and with a blue dot (arrow).

### Attention!

Pressure oil pumps MB and Teves operate on self-lubrication, that is, the delivered oil serves simultaneously as lubricant.

In the event of a defect on level control system which leads to complete loss of hydraulic oil, and when vehicle cannot be repaired immediately, make sure that pressure oil pump Teves is not drawing any air. If required, remove driver of pump drive.

**On engines 615, 616, 617 and 117 do not remove driver with pressure oil pump MB in the event of a defect on level control system, since otherwise the running engine will damage the intermediate gear shaft and the camshaft of the pump.**



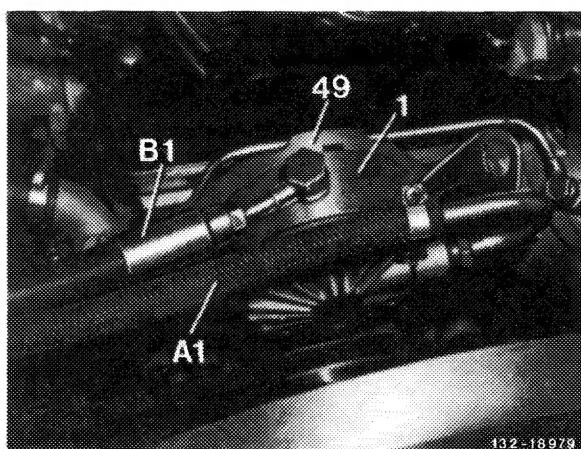
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## Removal

- 1 Disconnect expanding hose of pressure line (B1) and hose of suction line (A) on pressure oil pump. Close connection of suction line by means of plug.
- 2 Loosen four hex. socket screws for fastening pump to cylinder crankcase or cylinder head, pull out pump and remove.

Engine 102

- 1 Pressure oil pump
- 49 Intermediate flange
- A Suction line oil supply tank – pressure oil pump
- B1 Pressure line pressure oil pump – level controller



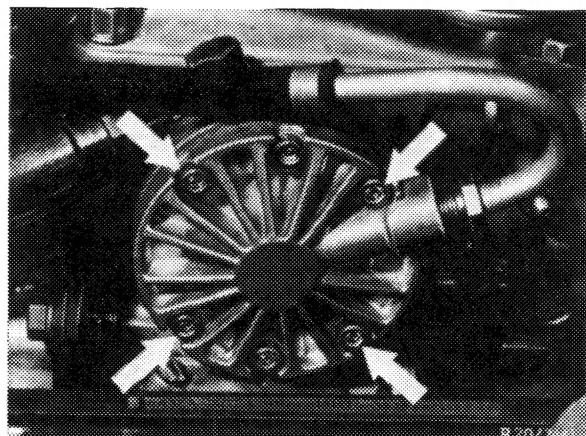
**Attention!**

Never release the two hex. socket screws for fastening cover to pump housing, since otherwise pump may start leaking.

Distinguishing mark of screws: The hex. socket screws for cover are provided with continuous threads visible between cover and housing.

Engine 110

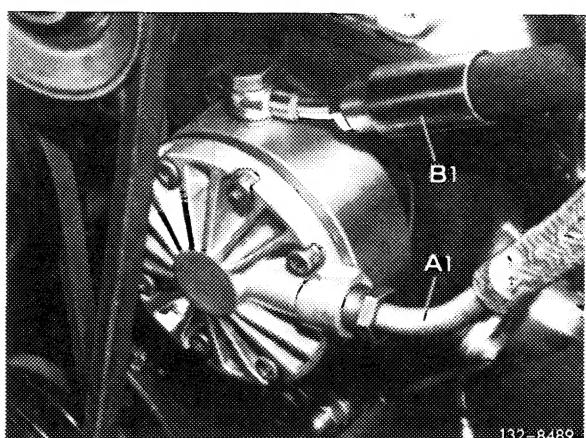
- A Suction line oil supply tank — pressure oil pump  
B1 Pressure line pressure oil pump — level controller



3 On engines 116, 117, remove ignition distributor (07.5–530), additionally loosen tensioning roller on engines with air-conditioning or automatic climate control and push in downward direction. To remove suction line (A), loosen holder on cylinder crankcase.

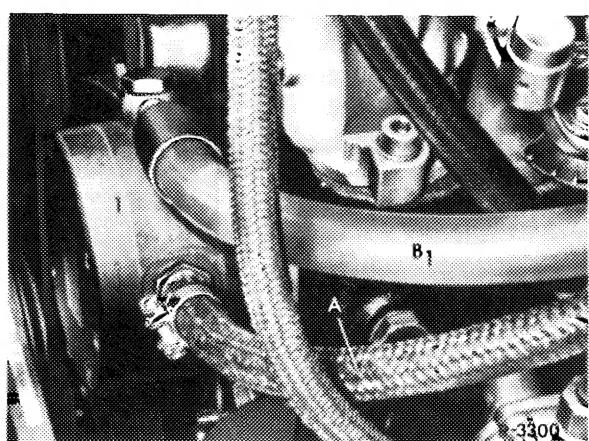
Engines 114, 115, 123, 130, 180 with pressure oil pump MB

- A1 Suction line oil supply tank — pressure oil pump  
B1 Pressure line pressure oil pump — level controller



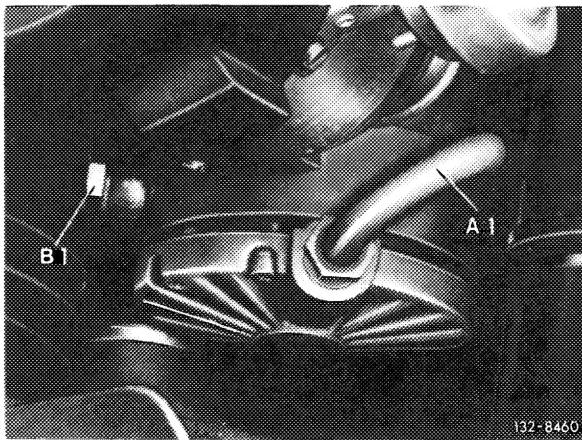
Engines 114, 115, 130, 180 with pressure oil pump Teves

- 1 Pressure oil pump  
A Suction line oil supply tank — pressure oil pump  
B1 Pressure line pressure oil pump — level controller



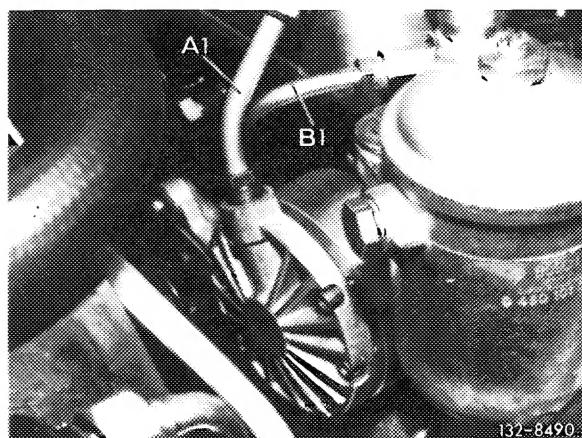
Engines 116, 117

- A1 Suction line oil supply tank — pressure oil pump  
B1 Pressure line pressure oil pump — level controller



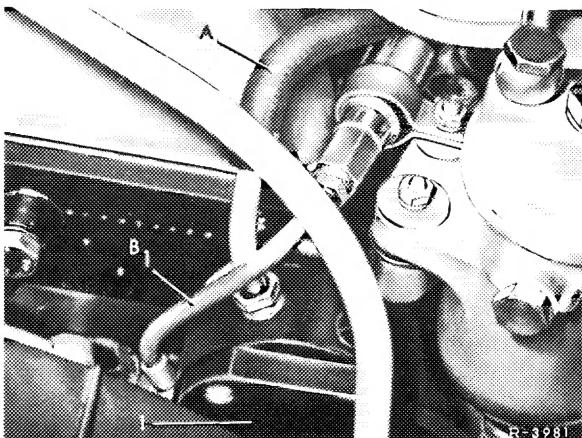
Engines 615, 616, 617 with pressure oil pump MB  
1st version up to January 1979

- A1 Suction line oil supply tank — pressure oil pump  
B1 Pressure line pressure oil pump — level controller



Engine 615 with pressure oil pump Teves  
1st version

- 1 Pressure oil pump  
A1 Suction line oil supply tank — pressure oil pump  
B1 Pressure line pressure oil pump — level controller



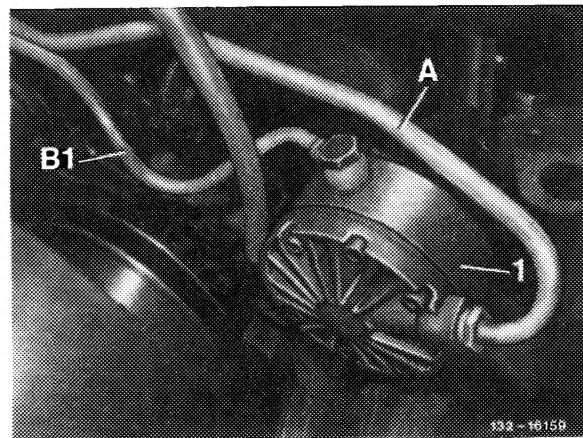
**Note:** On vehicles with diesel engine 615, 616 and 617, the location of the pressure oil pump on cylinder head, as well as the suction and pressure line connection on pressure oil pump have been changed since February 1979 by displacing the oil supply tank from the left to the right engine compartment.

The HP expanding hose with steel line to pressure oil pump installed from February to end of May 1979 is no longer available as a spare part.

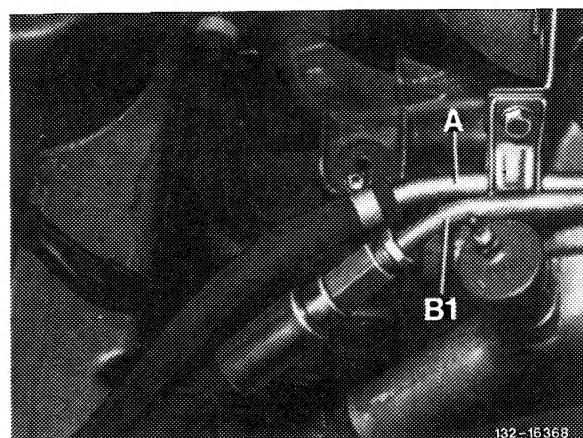
In the event of repairs, these vehicles should therefore be converted to the third version. Refer to conversion of suction and pressure line for models 123 with diesel engine (32-641).

Engine 615, 616, 617 with pressure oil pump MB  
2nd version from February to May 1979

A Suction line  
B1 Pressure line (steel)



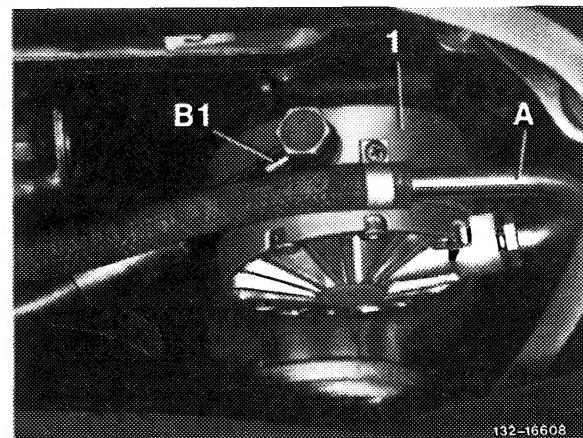
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Engines 615, 616, 617 with pressure oil pump MB  
3rd version starting June 1979

1 Pressure oil pump  
A Suction line oil supply tank — pressure oil pump  
B1 Pressure line pressure oil pump — level controller  
(HP expanding hose)



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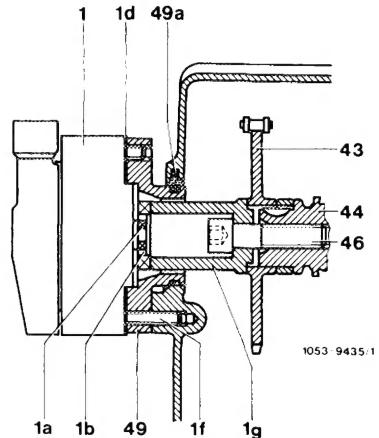
## Installation

- 4 Check driver and coupling members for pump drive.
- 5 Mount new gasket (1d), introduce pump, making sure that driver components are correctly meshing.  
Tighten hex. socket screws **uniformly** to 11 Nm.
- 6 Connect suction line (A) and pressure line (B1).

**Engine**

1 Pressure oil pump  
 1a Camshaft  
 1b Driver  
 1d Gasket  
 1f Hex. socket screw  
 1g Driving sleeve

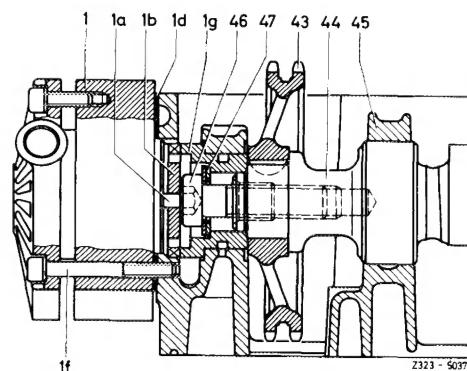
43 Camshaft gear  
 44 Camshaft  
 46 Hex. socket screw  
 49 Flange  
 49a O-ring



**Engine 110**

1 Pressure oil pump  
 1a Camshaft  
 1b Driver  
 1d Gasket  
 1f Hex. socket screw  
 1g Spacer sleeve

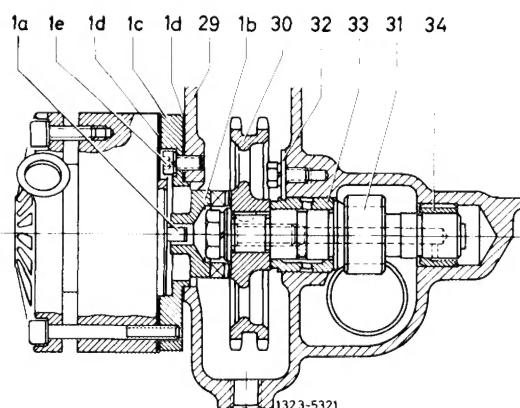
43 Camshaft gear  
 44 Camshaft  
 45 Camshaft housing  
 46 Hex. socket screw  
 47 Disc washer



**Engines 114, 115, 123, 130, 180  
with pressure oil pump MB**

1a Cam  
 1b Driver  
 1c Intermediate flange  
 1d Gasket  
 1e Hex. socket screw  
 with special head  
 1f Hex. socket screw

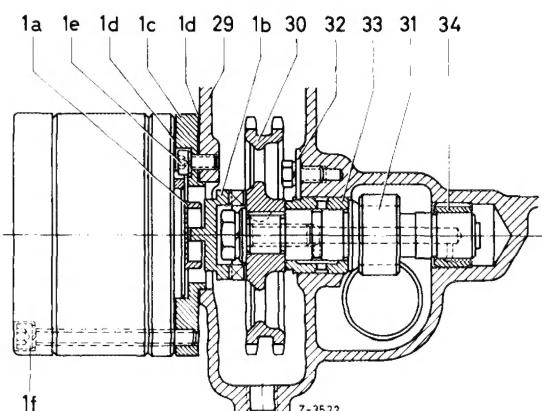
29 Cylinder crankcase  
 30 Intermediate gear  
 31 Intermediate gear shaft  
 32 Washer  
 33 Front bearing bushing  
 34 Rear bearing bushing



**Engines 114, 115, 130, 180  
with pressure oil pump Teves**

1a Cam  
 1b Driver  
 1c Intermediate flange  
 1d Gasket  
 1e Hex. socket screw  
 with special head  
 1f Hex. socket screw

29 Cylinder crankcase  
 30 Intermediate gear  
 31 Intermediate gear shaft  
 32 Washer  
 33 Front bearing bushing  
 34 Rear bearing bushing

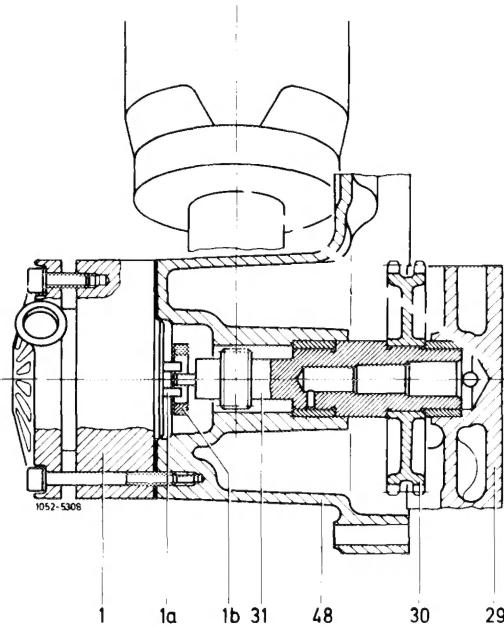


7 Check oil level in oil supply tank and top-up, if required.

8 Install ignition distributor on engines 116, 117 (07.5–530). On engines with air-conditioning or automatic climate control, tension V-belt of refrigerant compressor.

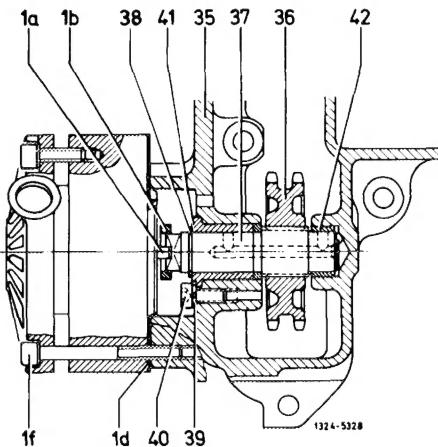
Set firing point (07.5–515).

Tighten holder of suction line (A) on cylinder crankcase.



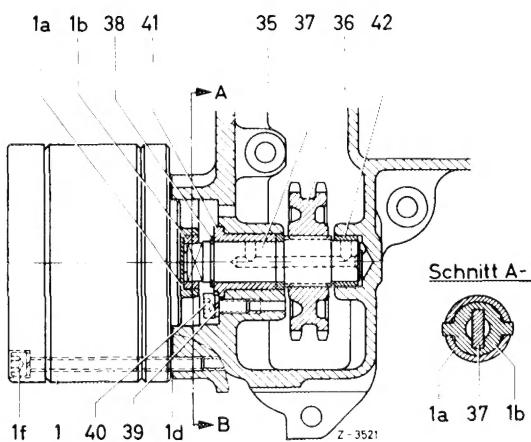
Engines 116, 117

- 1 Pressure oil pump
- 1a Camshaft
- 1b Driver
- 29 Cylinder crankcase
- 30 Intermediate gear
- 31 Intermediate gear shaft
- 48 Timing housing cover



Engines 615, 616, 617 with pressure oil pump MB

- |                      |  |
|----------------------|--|
| 1a Cam               | 38 Locking ring                        |
| 1b Driver            | 39 Snap ring                           |
| 1d Gasket            | 40 Hex. socket screw with special head |
| 1f Hex. socket screw | 41 Front bearing bushing               |
| 35 Cylinder head     | 42 Rear bearing bushing                |
| 36 Guide wheel       |  |
| 37 Shaft             |  |



Engine 615 with pressure oil pump Teves

- |                     |  |
|---------------------|--|
| 1 Pressure oil pump | 38 Locking ring                        |
| 1a Camshaft         | 39 Snap ring                           |
| 1b Driver           | 40 Hex. socket screw with special head |
| 1d Gasket           | 41 Front bearing bushing               |
| 35 Cylinder head    | 42 Rear bearing bushing                |
| 36 Guide wheel      |  |
| 37 Shaft            |  |